



TRANSPORTATION SAFETY COMMISSION

CITY OF HARRISONBURG, VIRGINIA

TO: Transportation Safety Commission Members, Council members, City Manager Kurt Hodgen, Assistant City Manager Evan Vass

FROM: Thanh H. Dang, Public Works Planner

DATE: December 3, 2009

RE: Transportation Safety Commission Minutes from December 1, 2009 Meeting

The Transportation Safety Commission met on Tuesday December 1, 2009 at the Department of Planning & Community Development, 409 S Main Street.

Members and Advisory Members present included: Bill Blessing (Chair), Len VanWyk (Citizen), Doug Stader (DMV), Officer Greg Deeds (Police), Drew Williams (Public Works), Thanh Dang (Public Works), Lee Eschelman (JMU), Reggie Smith (Transit), Sgt. William Keller (Police).

Guests Present include: None.

Citizens are always provided the opportunity to voice their views/concerns about any item before the commission. It is the policy of the Commission to move the agenda item to the beginning of the meeting when citizens attend Commission meetings to avoid detaining citizens for the entire meeting. However, any citizen is welcome to stay for the entire meeting.

Welcome

1. Special Presentation – Portable Speed Display

Sgt. Keller presented the Portable Speed Display. The powerpoint slides used are attached at the end of these minutes. The portable speed display was awarded to the Police Department in September 2009 and has been used on Maryland Ave., Linda Ln., and Dogwood Dr. Each unit costs over \$5,000.

Old Business

2. Grace St. & High St. – Update

Mr. Williams noted that placement of the crosswalks and ADA ramps cannot be changed due to the locations of the drop inlets on the northeast corner of the intersection.

There was a question: If a person starts crossing the street in a crosswalk, then leaves it to cross at a skew, before reaching the other sides, who would be liable? The driver or the pedestrian? Officer Deeds noted that it would probably be the responding Police Officers and/or Judge's discretion and may depend on the specific situation. It was also noted that although drivers must yield the right-of-way to pedestrians in a crosswalk and that pedestrians crossing at intersections have right-of-way over vehicles making turns into the street being crossed by the pedestrians, that pedestrians shall not enter or cross an intersection in disregard of approaching traffic and that pedestrians should be aware of surrounding vehicles before crossing.

Staff will continue to move forward with split-phasing the traffic on Grace St. at this intersection. This change will occur when students are away for break.

3. Fairway Dr. – Update

City staff did not attend the Neighborhood Homeowner's Association meeting on November 11, 2009 (the neighborhood representative was unable to get the item onto the Association meeting's agenda). Ms. Dang noted that the 85th Percentile speed on Fairway Dr. on the hill in front of 434 Fairway Dr. is 40.75 mph and 38.64 mph for east and west directions respectively.

It was discussed that given the low annual average daily traffic (AADT) of 137 and 198, it is likely residents of the neighborhood who are violating the speed limit. *Note: The City's NTCP manual recommends that for residential streets with fewer than 500 vehicles per day that education and enforcement are appropriate traffic calming measures.*

Mr. Williams noted that given the low AADT that it would be appropriate to utilize the 95th Percentile speed prior to considering use of physical devices for traffic calming, as described in the City's Neighborhood Traffic Calming Program Manual.

Ms. Dang suggested that this could be a good neighborhood to launch the "Team Up to Slow Down" education campaign. Public Works and Police Dept. staff will continue working together and with the neighborhood and will continue to update the Commission.

New Business

4. Main St. & Grace St.

Commission members asked if diagonal crosswalks could be considered at this intersection since it is set up for an exclusive (all red) pedestrian phase and pedestrians are crossing diagonally at this intersection. Discussion followed. Mr. Williams explained that marking diagonal crosswalks would require additional red time for the signal because the distance to cross diagonally is greater than crossing from one corner to an adjacent corner. Additional red time would impact the coordination plan with other signalized intersections along the Main St. corridor. The Commission took no action on this item.

5. Storm Drainage Grates/ Bicycle Safety

Attached is a summary of storm drainage grates that were inventoried by the Public Works Department. The Public Works Department had met with representatives from a local machine shop who will construct new grates out of steel for under \$5,000. The original grates were made of iron and were cast at a foundry.

A commission member asked if rebar could be welded onto the original grates. Steel and cast iron cannot be welded together and maintain the structural integrity required. Additionally, there was concern expressed about snow plows driving over uneven surfaces.

Staff will report back at the January meeting.

Note: The spreadsheet has been updated to add 3 additional Priority 1 grates. The first 5 priority 1 grates have been addressed as of December 11, 2009.

6. Fatality on Betts Rd.

The fatality from a motor vehicle accident on the 300 block of Beets road was discussed. The police report is expected to be available for further discussion at the next meeting.

Other Business

7. Mr. Stader shared that there have been 664 fatalities this year compared to 765 fatalities from motor vehicle accidents last year. So far the statewide goal for 100 fewer fatalities is being met.
8. "Buzz Driving is Drunk Driving" Awareness is this month (December)
9. At November 24th City Council meeting several awards were presented:
 - a. "Saved by the Belt" was presented to Heather Justice, citizen.
 - b. Harrisonburg Police Department received two Awards from the state for distinguished service to the community.
 - c. Harrisonburg Fire Department received the Governor's EMS award for their work with the Safe Kids program.

NEXT MEETING THURSDAY January 7, 2010 AT 9:00AM at Community Development Classroom, 409 S Main Street.

HARRISONBURG POLICE DEPARTMENT

SPEEDSENTRY RADAR SPEED DISPLAY

Presented by:

Sgt. William Keller, Special Operations Unit

HPD SPEEDsentry Radar Speed Display

- Mount it almost anywhere;
 - Municipal posts & poles
- Battery operated
- Bluetooth enabled
- PDA Programmable
- Durable
 - Tamper Proof
 - Shatterproof Lexan shield
- Violator Strobe



HPD SPEEDsentry Radar Speed Display

- Stealth Mode
 - Turn off the digits
- Wireless Management
 - Program the settings
 - Adjust the radar
 - Check the battery
 - Download the data
 - Never leave your vehicle
- ▣ High Intensity LEDs



SPEEDsentry Application Process



1. Install
SPEEDsentry on
post.

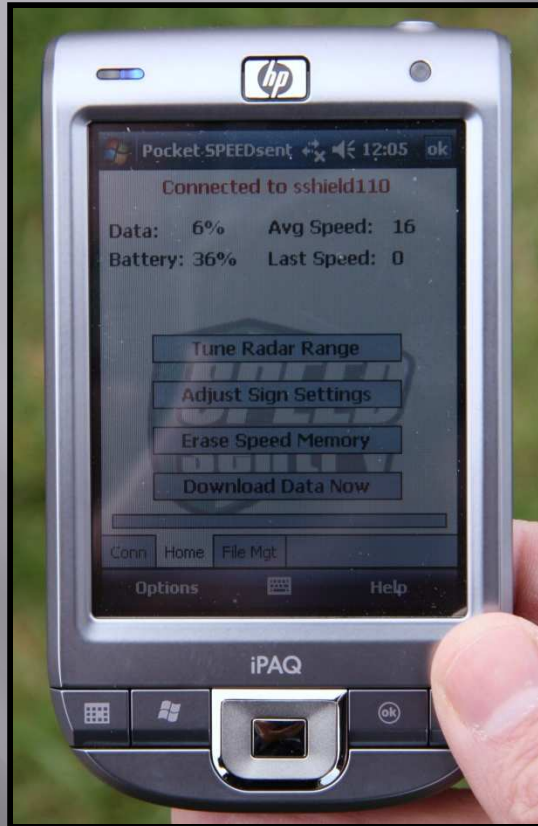


2. Program
SPEEDsentry with
PDA.



3. SPEEDsentry
collects data.

SPEEDsentry Application Process



4. PDA receives data from SPEEDsentry.



5. Sync PDA with desktop computer for file transfer.

Connect to your SPEEDsentry by plugging the USB or serial cable into your computer. Select the USB or Serial port that you wish to use from the Connect menu above. To analyze previously saved data: Press 'Load Data From File'. To import data from the PDA: Connect computer to PDA and press 'Import Data From PDA'.

Get New Data Load Data From File Import Data From PDA

SPEEDsentry Summary Information

for dogwood dr 300 blk.ssd

Speed Limit: 25	Display Trigger: SpeedLimit
Avg Speed: 23.6	Maximum Speed Detected: 50
50% Speed: 29	85% Speed: 34
10 MPH Pace: 25 to 34	Radar Pickup Distance: 250 ft

File size: 254,350 bytes File Created: 10/15/2009 1:25:37 PM
File Version: SSD_1_1 Data Points: 785,387

* This File contains settings changes. Please see the Settings History tab for details. Print This Summary

Radar Pickup Distance: 250 ft Recalculate @ New Pickup Distance	85 % Speed Recalculate New %
--	---------------------------------

This radar gun is auto-ranging ... no range input is needed

Enter the Percentile (1 to 100) to see the Maximum Speed at which every car at or under that percentile is going. Default is 85%.

6. SPEEDsentry software opens data file for analysis by officers.


HPD SPEEDsentry Software

- Road Speed
 - User-defined speed limit
- 85th Percentile
 - Speed below which 85% of the traffic is traveling
- Pace
 - 10mph window that captures the highest volume of traffic
- One Page Summary
 - Key performance data within data file is presented on one screen

Connect to your SPEEDsentry by plugging the USB or serial cable into your computer. Select the USB or Serial port that you wish to use from the Connect menu above. To analyze previously saved data: Press 'Load Data From File'. To import data from the PDA: Connect computer to PDA and press 'Import Data From PDA'.

Get New Data Load Data From File Import Data From PDA

SPEEDsentry Summary Information
for dogwood dr 300 blk.ssd

Speed Limit: 25	Display Trigger: SpeedLimit	
Avg Speed: 28.6	Maximum Speed Detected: 58	
50% Speed: 29	85% Speed: 34	
10 MPH Pace: 25 to 34	Radar Pickup Distance: 250 ft	

File size: 254,350 bytes File Created: 10/15/2009 1:25:37 PM
File Version: SSD_1_1 Data Points: 785,397

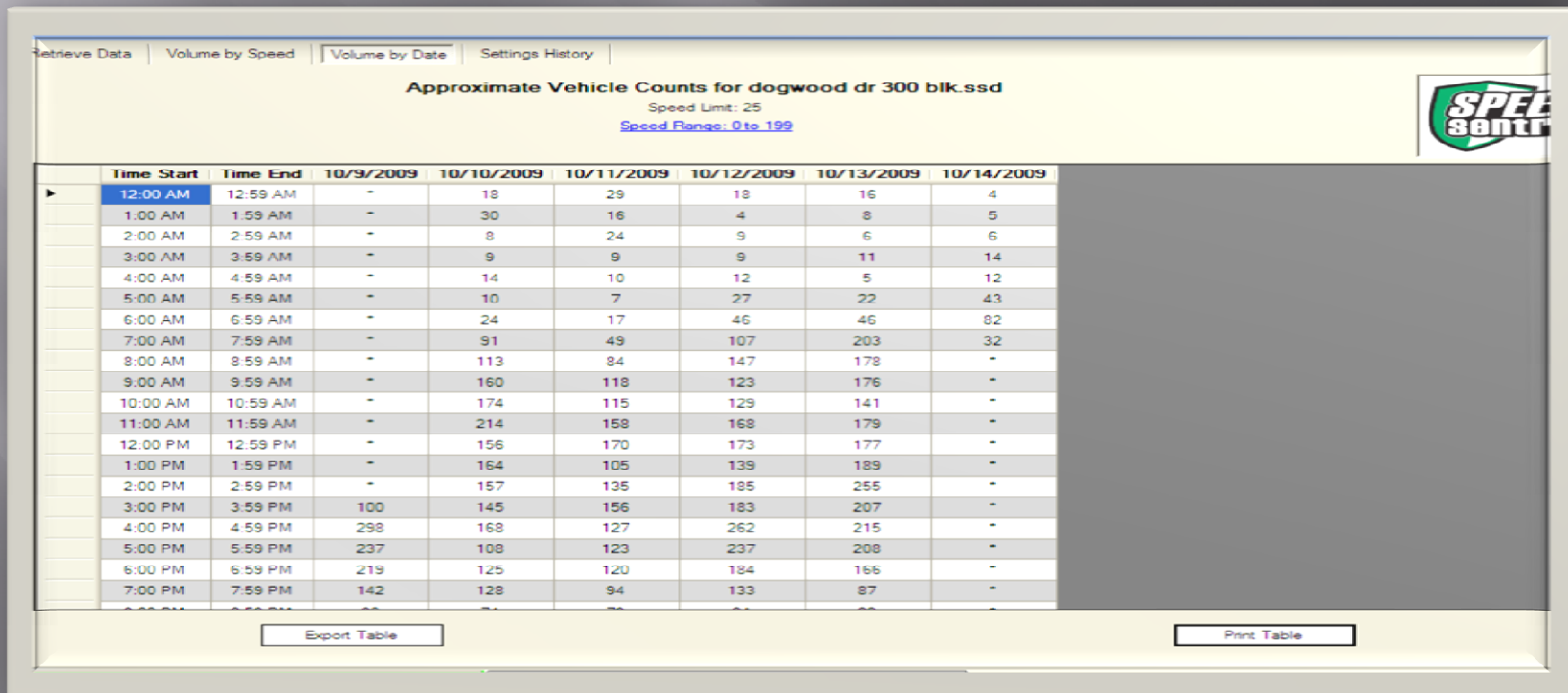
* This file contains settings changes. Please see the Settings History tab for details. [Print This Summary](#)

Radar Pickup Distance: <input type="text" value="250"/> ft Recalculate @ New Pickup Distance This radar gun is auto-ranging ... no range input is needed	<input type="text" value="85"/> % Speed Recalculate New % Enter the Percentile (1 to 100) to see the Maximum Speed at which every car at or under that percentile is going. Default is 85%
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SPEEDsentry Software


Volume Analysis: Identify peak travel times and trends in addition to speed information.

Review the Days You Want: All days, a range of days or a specific day.



Retrieve Data | Volume by Speed | **Volume by Date** | Settings History

Approximate Vehicle Counts for dogwood dr 300 blk.ssd
Speed Limit: 25
[Speed Range: 0 to 199](#)



	Time Start	Time End	10/9/2009	10/10/2009	10/11/2009	10/12/2009	10/13/2009	10/14/2009
▶	12:00 AM	12:59 AM	-	18	29	18	16	4
	1:00 AM	1:59 AM	-	30	16	4	8	5
	2:00 AM	2:59 AM	-	8	24	9	6	6
	3:00 AM	3:59 AM	-	9	9	9	11	14
	4:00 AM	4:59 AM	-	14	10	12	5	12
	5:00 AM	5:59 AM	-	10	7	27	22	43
	6:00 AM	6:59 AM	-	24	17	46	46	82
	7:00 AM	7:59 AM	-	91	49	107	203	32
	8:00 AM	8:59 AM	-	113	84	147	178	-
	9:00 AM	9:59 AM	-	160	118	123	176	-
	10:00 AM	10:59 AM	-	174	115	129	141	-
	11:00 AM	11:59 AM	-	214	158	168	179	-
	12:00 PM	12:59 PM	-	156	170	173	177	-
	1:00 PM	1:59 PM	-	164	105	139	189	-
	2:00 PM	2:59 PM	-	157	135	185	255	-
	3:00 PM	3:59 PM	100	145	156	183	207	-
	4:00 PM	4:59 PM	298	168	127	262	215	-
	5:00 PM	5:59 PM	237	108	123	237	208	-
	6:00 PM	6:59 PM	219	125	120	184	166	-
	7:00 PM	7:59 PM	142	128	94	133	87	-
	8:00 PM	8:59 PM	22	31	55	51	22	-

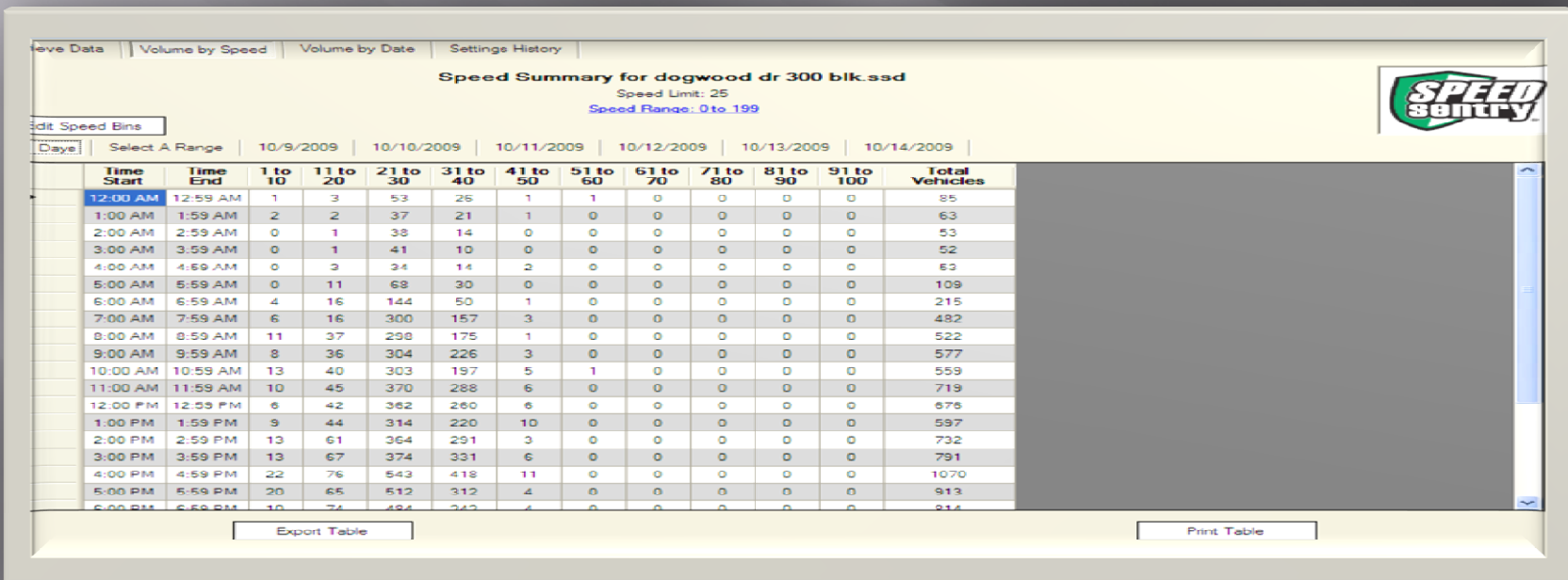
Export Table | Print Table

SPEEDsentry Software

Easy Export: Use Excel or any other spreadsheet program for more detailed charts and graphs to suit your needs.

Prioritize: See the days and times with the worst violations. Determine when and if a problem exists.

Adjust speed bins: Determine your speed windows or ignore speeds below the threshold you define.



Save Data | Volume by Speed | Volume by Date | Settings History

Speed Summary for dogwood dr 300 blk.asd
Speed Limit: 25
Speed Range: 0 to 199

Edit Speed Bins

Day | Select A Range | 10/9/2009 | 10/10/2009 | 10/11/2009 | 10/12/2009 | 10/13/2009 | 10/14/2009

	Time Start	Time End	1 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	61 to 70	71 to 80	81 to 90	91 to 100	Total Vehicles
	12:00 AM	12:59 AM	1	3	53	26	1	1	0	0	0	0	85
	1:00 AM	1:59 AM	2	2	37	21	1	0	0	0	0	0	63
	2:00 AM	2:59 AM	0	1	38	14	0	0	0	0	0	0	53
	3:00 AM	3:59 AM	0	1	41	10	0	0	0	0	0	0	52
	4:00 AM	4:59 AM	0	2	24	14	2	0	0	0	0	0	42
	5:00 AM	5:59 AM	0	11	68	30	0	0	0	0	0	0	109
	6:00 AM	6:59 AM	4	16	144	50	1	0	0	0	0	0	215
	7:00 AM	7:59 AM	6	16	300	157	3	0	0	0	0	0	482
	8:00 AM	8:59 AM	11	37	298	175	1	0	0	0	0	0	522
	9:00 AM	9:59 AM	8	36	304	226	3	0	0	0	0	0	577
	10:00 AM	10:59 AM	13	40	303	197	5	1	0	0	0	0	559
	11:00 AM	11:59 AM	10	45	370	288	6	0	0	0	0	0	719
	12:00 PM	12:59 PM	6	42	362	260	6	0	0	0	0	0	676
	1:00 PM	1:59 PM	9	44	314	220	10	0	0	0	0	0	597
	2:00 PM	2:59 PM	13	61	364	291	3	0	0	0	0	0	732
	3:00 PM	3:59 PM	13	67	374	331	6	0	0	0	0	0	791
	4:00 PM	4:59 PM	22	76	543	418	11	0	0	0	0	0	1070
	5:00 PM	5:59 PM	20	65	512	312	4	0	0	0	0	0	913
	6:00 PM	6:59 PM	10	74	484	342	4	0	0	0	0	0	914

Export Table | Print Table

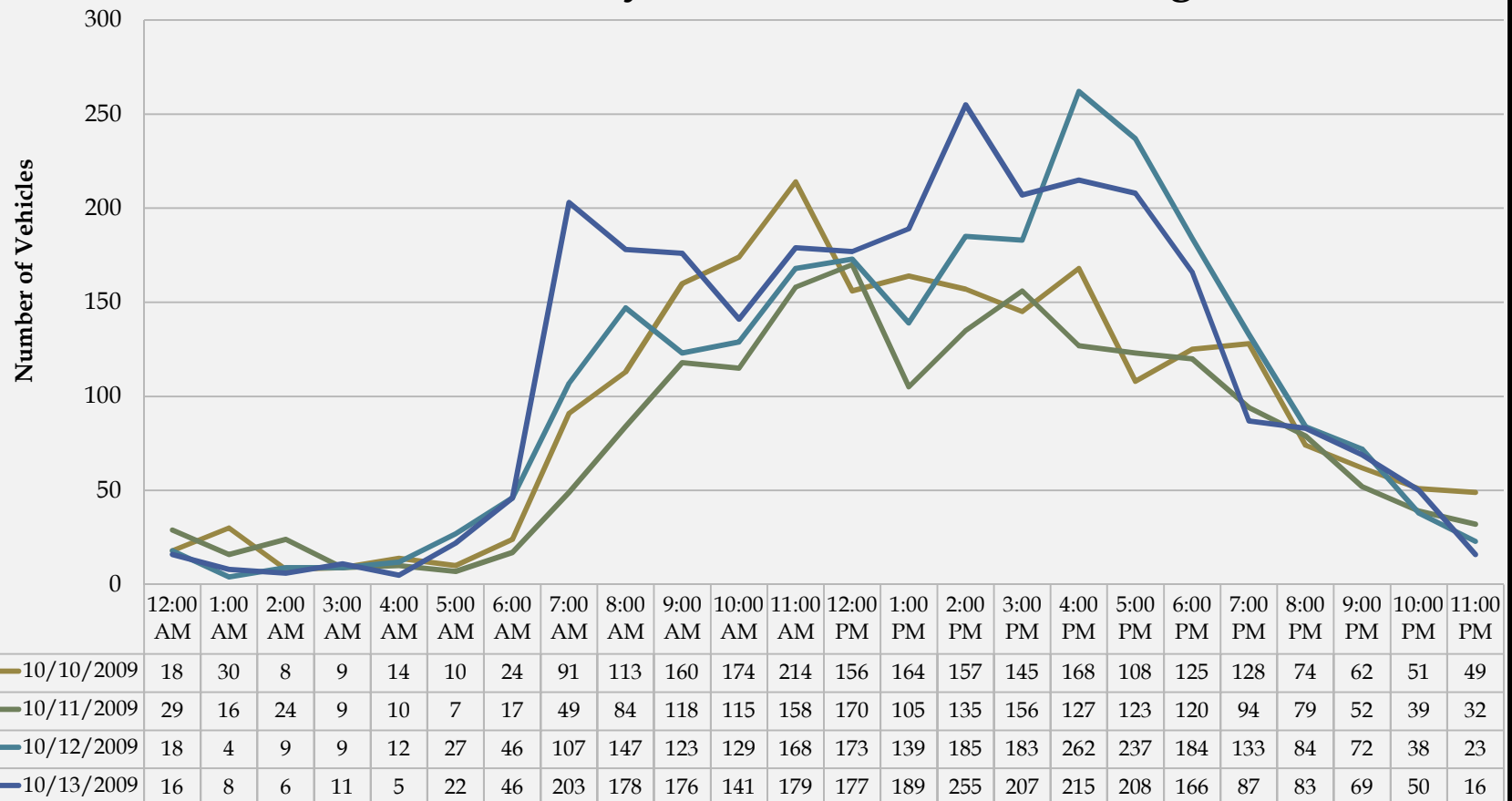
HPD SPEEDsentry Software

➤ Settings History

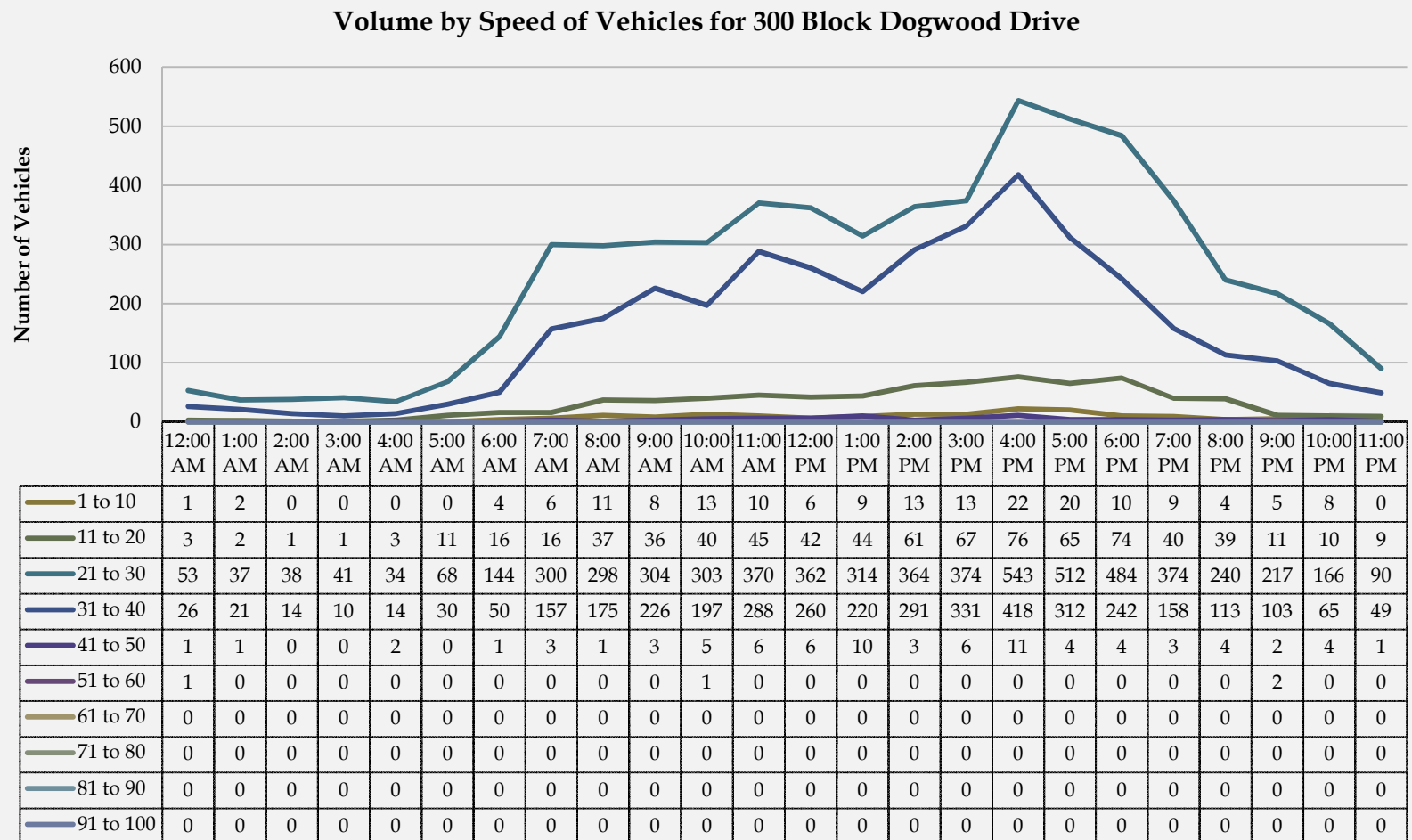
Settings History for dogwood dr 300 blk.ssd											
Effective Date	Sign Mode	Display Mode	Display Trigger	Strobe Trigger	Relay Trigger	DataLogging	Speed Limit	Reduced Speed Limit	Max Speed To Display	Time A On	Time A Off
10/9/2009 7:13:14 AM	Radar On Always	Constant	Speed Limit	Speed Limit	None	<input type="checkbox"/>	25	15	45	7:00 AM	9:00 AM
10/9/2009 3:25:28 PM	Radar On Always	Constant	Speed Limit	Speed Limit	None	<input type="checkbox"/>	25	15	45	7:00 AM	9:00 AM

SPEEDsentry Data Graphed in MS-Excel

Volume of Vehicles by Date for the 300 Block Dogwood Drive



SPEEDsentry Data Graphed in MS-Excel



SPEEDsentry Radar Speed Display

➤ Pros

- Easy to use software
- Bluetooth enabled
- Mobile
- Long battery life
- Strobe light

➤ Cons

- Costs (\$5000-6000.00)
- Mounting places
- PDA battery

THANK YOU!

Does anyone have any questions
or comments ?

Location	Size	Type	Gap Opening	Number	Gen. Info	Priority Replacement	Photo #
95 S. Main @ E. Water	23"x18"x1.5"	Straight	2.25"x10.5"	1	Radius - CHBN 16	1	5a, 5b, 5c
57 S. Main @ Bank of America	24"x24"x3"	Straight/ Paralell	2"x11"	1	2" slot	1	4a, 4b, 4c
Gay St. @ N. Liberty St.	28"x18"x2"	Straight/ Paralell	1.5"x24"	1	Street	1	2a, 2b, 2c
S. Liberty @ Bruce St. (NW)	27.5"x18"x2"	Straight	1.5"x24"	1	Radius	1	3a, 3b
S. Liberty @ Bruce St. (SW)	27.5"x18"x2"	Straight/ Parallel	1.5"x24"	1	Radius	1	
Bruce St. (Library/Verizon)	27.5"x18"x2"	Straight		1	Street	1	
S. Mason @ Market (W) by Wachov	28"x18"x2"	Straight	5-1/4"x1 3/4"	1	Street	1	
S. Liberty @ Bruce St. (NE)	27.5"x18"x2"	Straight		1	Street	1	
			TOTAL	8		TOTAL	
Main @ E Market (SE)		Straight/ Paralell	7/8" x 15"	1	In street, need repair	2	20a, 20b
N. Liberty @ W. Elizabeth (NE)	18"x17"x2"	Straight		1	#3246-0027 (1.5" slot)	2	
S. Liberty/Water (SW)	23.5"x17.5"x1"	Straight		1	Street	2	
Newman @ S. Main (SE)	23.5"x18"x1.5"	Straight/ Paralell	7/8" x 9"	1	Radius - CHBN 16	2	7a, 7b
Newman @ S. Main (NE)	23.5"x18"x1.5"	Straight/ Paralell	7/8" x 9"	1	Radius - CHBN 16	2	10a, 10b
108 S. Main @ Water St. (NW)	23.5"x18"x1.5"	Straight	7/8"x9"	1	Dewey - CHBN 16, in front of	2	13a, 13b
Water St @ S Main (SE)		Straight/ Paralell	7/8" x 9"	1	Radius	2	15a, 15b
28 S. Main @ Jess' Lunch		Diagonal	1-5/8"	1	Street	2	19a, 19b, 19c
S. Main @ Gay St. (SW)	22.5"x17"x2"	Straight		1	Street	2	
Ashtree Ln @ Federal	30.25"x30.25"x2"	Straight	1.25"x9"	1	Alley - perpendicular	2	
Ashtree Ln @ Federal	29.25"x29.25"x1.5"	Straight	1.5x28-1/4"	1	Alley - perpendicular	2	
			TOTAL	11			
34 S. Main @ Music Store		Diagonal	2-5/8"	1	#3067-0004 (Street)	3	18a, 18b
Mason St. @ SunTrust Lot	37.5"x21.5"x2"	Straight	1x"x9-1/4"	1	Radius	3	
Mason St. @ E. Market St (NE)	23.5"x18"x1.5"	Straight	1-3/4"x7-3/4"	1	Street	3	
Water St @ S Main (NE)		Straight/ Paralell	7/8" x 9"	1	Radius	3	16a, 16b
S. Mason @ Ashtree Ln (SW)	17.5"x16.5"x2"	Straight	1"x14"	1	Street	3	
S. Mason @ Ashtree Ln (NW)	18"x17"x2"	Straight	1x15.5"	1	Street	3	
Elizabeth @ Broad St. (SE Radius)	18"x17"x2"	Straight	1"x15-1/4"	1	Street	3	
Elizabeth @ Broad St. (NERadius)	27.5"x18"x2"	Straight	2"x7"	1	Radius	3	
Reservoir Street @ I-81		Straight/ Parallel	?	1	Southbound at 1st light pole	3	
			TOTAL	8			
S. Liberty/Water (NW)	30"x20"x2"	Diagonal		1	Radius (1- 3/8" slot)	NA	
N. Liberty @ Graham St.	23.5"x18"x1.5"	Straight	1-5/8"	1	Street	NA	
N. Liberty @ W. Elizabeth (NW)		Diagonal	1-5/8"	1		NA	
N. Liberty @ Market St. (Radius)		Diagonal		1	Street	NA	
102 S. Main @ Water St		Straight/ Paralell	7/8"x6"	1	Grate in corner of pulloff	NA	
Parking Lot/ Dave's Taverna		Straight/ Perpend.	7/8"	1		NA	11a, 11b
Newman @ S. Main (SE)	35.5"x23.5"x2"	Diagonal	1.75"	1	Approaching intersection	NA	6a, 6b
Newman & S Main (NE)	35.5"x23.5"x2"	Diagonal	1.75"	1	Approaching intersection	NA	8a, 8c
Newman & S Main (NE)	35.5"x23.5"x2"	Diagonal	1.75"	1	Approaching intersection	NA	8b, 8c

Suggested Minimum Standard for Gap Length & Width
Paralell Grate L-6" max W- 1" max
New Diagonal Grate W - 1.5" max
Replacement Diag. Grat. W- 1.75" max

Priority Ranking
1 Replacement by Feb 1 (citizen group list)
2 Replacement in next 2 years
3 Replacement in regular maintenance activities
 e.g. curb & gutter replacement
NA Replacement Not Needed

16 Newman		Straight/Perpend.	7/8"	1	Near Pennybackers	NA	9a, 9b
S. Main @ Water St. (SW)		Diagonal	1.5"	1		NA	12a, 12b
80 S. Main @ Jack Browns		Straight		1	In alley pull off	NA	
S. Main @ Gus' Lot			7/8" x 9"	1	Grate in corner of pulloff	NA	
E Market @ Main (SE)	35.5"x23.5"x2"	Diagonal	1-5/8"	1	#3246-0027	NA	21a, 21c
E Market @ Main (SE)	35.5"x23.5"x2"	Diagonal	1-5/8"	1	#3246-0027	NA	21b, 21c
E Market @ Main (NE)	35.5"x23.5"x2"	Diagonal	1-5/8"	1	#3246-0027	NA	22a,22c
E Market @ Main (NE)	35.5"x23.5"x2"	Diagonal	1-5/8"	1	#3246-0027	NA	22b,22c
Main @ E Market (NE)	35"x18"x2"	Diagonal	1-5/8"	1	#3067-0004	NA	23a, 23b
Main @ S. Court Sq. (SW)	35"x18"x2"	Diagonal	1-5/8"	1	#3067-0004	NA	24a, 24b
S Court Sq		Diagonal	1-5/8"	1	In parking stall	NA	25a, 25b
S. Liberty @ Market	30"x20"x2"	Diagonal	1.5	6	Street (1-3/8" slot)	NA	
Federal @ Bruce St. (HHH)	18"x17"x2"	Straight		1	Radius (2" slot)	NA	
N. Liberty @ Graham St.	35.5"x23.5"x2"	Diagonal	1.5"	1	#3246-0027 (1.5" slot)	NA	
S. Liberty/Judicial Complex	30"x20"x2"	Diagonal		4	Street (1-3/8" slot)	NA	
Graham St @ N. Liberty		Straight	1-5/8"		In radius	NA	
Graham St @ N. Liberty		Diagonal	1.75"			NA	
W Court Sq		Diagonal	1-3/4"	1	In parking stall	NA	
60					TOTAL IDENTIFIED GRATES		

Updated: December 11, 2009